

## REVIEW OF RISK ASSESSMENT PREPARED BY GRADIENT CORPORATION

May 8, 2002

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### Reasons why Risk Assessment is flawed

1. The study only evaluated newly milled concentrate for bioavailability. Over time, concentrate released into the surface environment can become more bioavailable.
2. To accurately evaluate bioavailability, swine studies need to be performed and this study does not evaluate a swine study for concentrate bioavailability.
3. The study assumes that all road dust is lead concentrate and provides no data to support this assumption. EPA believes that the source of lead dust on haul routes is more likely a mixture of all the lead-bearing, fine grain dusts found at the smelter. EPA believes that the primary mechanism for continual re-contamination of haul roads is vehicle tracking i.e., vehicle tires picking up lead bearing dusts (some of which is likely concentrate) inside the smelter facility and releasing them on the roads as the vehicles leave the facility. This assumption is easily verifiable and Doe Run has recently agreed to develop and implement tire sampling protocol to verify/dispute this assumption.
4. The assumption that a child obtains 10 % of his total daily soil/dust ingestion from street dust is not supported with data or any scientific rationale.
5. The Risk Assessment fails to consider the impact of having continual releases of road dust onto the roads, its migration and tracking throughout surface soils and homes, and the continual re-entrainment of this material onto all exposed surfaces in the area.
6. The assumption that a 2.5-year old child would not return to a hot spot in a street or along a street is unfounded. A hot spot located in front of a child's home would most likely be visited more than once by a child residing at that home.
7. The IEUBK input data for soil, ambient air concentration, and dust are unclear to the reader. A table should be included that provides this data.

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